STATUS OF THE CLAIMS

Claims 1 - 5 are pending.

Claims 1 - 5 stand rejected.

Claims 1 – 5 have been amended herein..

REMARKS

Reconsideration of this application is respectfully requested.

Drawings

Pursuant to the Examiner's instruction, Applicant has labeled Figures 1 and 3 as prior art. Applicant has amended page 17, line 2 of the specification to omit reference 20a. Applicant has also amended page 19 of the specification to correct reference 404. Applicant has submitted formal drawings herewith.

Accordingly, Applicant respectfully deems the Examiner's requirements with regard to the drawings overcome.

Specification

Applicant has amended pages 24, 26 and 27 of the specification to correct the "238" reference to "38" as was indicated by the Examiner. Applicant has amended page 29 of the specification to correct the "240" reference to "420" as was indicated by the Examiner. Applicant has amended page 32 of the specification to correct the "210"

reference to "10" as was indicated by the Examiner. Applicant has amended page 19 of the specification to omit reference "20" as was indicated by the Examiner.

Accordingly, Applicant respectfully deems the Examiner's objections to the specification overcome.

Claims

Claims 1 –5 stand rejected as being anticipated under 35 U.S.C. 102(b) by *Fuhrman* (U.S. Pat. No. 5,745,837). Applicant respectfully traverses these rejections and/or deems them overcome for at least the following reasons.

Anticipation under 35 U.S.C. 102 requires the cited art teach every aspect of the claimed invention. *See, M.P.E.P. §706.02(a).* In other words, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See, M.P.E.P. §2131 citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claim 1

Claim 1 has been amended without prejudice to recite, in part, "a wideband signal distribution system for distributing a plurality of non-IP, RF modulated signals." Claim 1 has also been amended without prejudice to recite, "at least one intelligent device for modulating single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system." Applicant respectfully submits that Fuhrman fails to at lest teach, or disclose the claimed IP digital data.

In support of the rejections, Examiner relies upon column 8, lines 47 – 50 of Fuhrman to support the proposition that "Fuhrman also discloses at least one intelligent device that distributes single frequency carrier RF signals onto a wide band distribution system wherein the single frequency carrier RF signal comprises digital information where a modulator/transmitter converts the digital data in the data stream arriving on the bus into amplitude modulations of a carrier signal." Applicant respectfully submits that irregardless of the correctness of such an assertion, which is neither admitted nor denied, Fuhrman fails to teach at least the above-identified limitations.

Applicant submits Fuhrman teaches at column 8, lines 47 – 50:

> Modulator/transmitter 16 converts the digital data in the data stream arriving on bus 14 into amplitude modulations of a carrier signal by partial matrix multiplication similar to that done by modulator/transmitter 12 using a second code

Fuhrman further teaches the digital data input stream arriving on bus 14 is like the digital data stream arriving on bus 10. *See, e.g., col. 8, lines 40-45.* With regard to these data streams, Fuhrman teaches:

> To utilize these mathematical relationships of FIGS. 2 and 3A and convert them into a practical digital data communication system, symbolized by the system of FIG. 1, subscriber #1 provides a digital input stream of symbols or bits using any input device or computer (not shown). This digital data stream to be transmitted to the head end arrives on bus 10 at the data input of a code #1 modulator/transmitter 12. This digital data stream will be divided into individual symbols transmitted at the rate of three symbols/frame in the preferred embodiment. The teachings of the invention can be employed using symbols, data bytes or any other grouping of digital data. The first bit from the stream on bus 10 will be the first vector element in the information vector ›b!. For the sake of simplicity, the manner in which symbols are formed from the incoming data stream will not be described here, but will be described in greater depth below herein. In the preferred embodiment,

> symbols are formed by filling individual address locations in a framer memory (not shown) with 9 bit bytes which arrive one per timeslot. The individual data streams on buses 10 and 14 are TDMA streams divided into multiple successive timeslots. Thus, time increases along one axis of the framer memory. Symbols are formed by reading the memory "across time", i.e., along an axis orthogonal to the axis of increasing time. *Col. 7, line 61 – col. 8, line 17 (emphasis added)*.

Accordingly, Applicant respectfully submits at least those portions of the Fuhrman reference cited in the present Office action fails to teach, or suggest for that matter, that single frequency carrier RF signals are modulated using IP digital data – as Fuhrman explicitly teaches the use of TDMA streams, for example.

Wherefore, Applicant respectfully submits the cited reference fails to teach or suggest at least each of the limitations of amended Claim 1, and hence fails to anticipate it. Accordingly, Applicant respectfully requests reconsideration and removal of at least this rejection to Claim 1.

Claim 2

Claim 2 recites in part, "a wideband signal distribution system including 568 standard wiring." With regards to this limitation, Examiner argues, "coaxial cable is recognized as a wiring choice in the 568 wiring standard." *9/12/02 Office action, page 4, lines 2 – 3.* Applicant respectfully traverses this assertion. Rather, Applicant believes that while the EIA/TIA-568 standard may refer to unshielded or shielded twisted pair (UTP or STP) or multimode or single mode fiber for use in backbones, and UTP and STP and fiber for use in horizontal cabling, it does not expressly teach the use of coax. Alternatively, should the Examiner persist in this rejection, Applicant respectfully

requests the Examiner particularly identify those references upon which he relies for such a teaching. Alternatively, should the Examiner be taking judicial notice of this teaching, Applicant respectfully traverses this assertion, and requests the Examiner cite a reference in support of his position that coaxial cabling is a recognized choice of the 568 wiring standard pursuant to *MPEP §2144.03, par. 2.*

Further, Applicant has amended Claim 2 to recite, in part, "wherein said single frequency RF signals comprise IP digital information." Accordingly, Applicant respectfully deems the rejection to Claim 2 overcome for at least those reasons set forth with regard to Claim 1 as well.

Wherefore, Applicant respectfully submits the cited reference fails to teach or suggest at least each of the limitations of amended Claim 2, and hence fails to anticipate it. Accordingly, Applicant respectfully requests reconsideration and removal of at least this rejection to Claim 2 as well.

Claims 3 - 5

Claim 3 has been amended in part to recite, "at least one intelligent device communicatively coupled with said at least one addressable device to communicate therewith a single carrier frequency RF signal carrying at least the IP digital signal portion thereon." Claim 4 has been amended in part to recite, "at least one intelligent device communicatively coupled to said distribution system for modulating single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system. And, Claim 5 has been amended in part to recite. " Accordingly, Applicant respectfully deems the

rejections to Claims 3 - 5 overcome for at least those reasons set forth with regard to Claim 1 as well.

Wherefore, Applicant respectfully submits the cited reference fails to teach or suggest at least each of the limitations of each of amended Claims 3 - 5, and hence fails to anticipate them as well. Accordingly, Applicant respectfully requests reconsideration and removal of at least this rejection to Claims 3 - 5 also.

CONCLUSION

In summation, Applicant respectfully submits that all of the claims presently appearing in this application are in condition for allowance, early notification of which is earnestly solicited. Should there be any questions or other matters whose resolution may be advanced by a telephone call, the Examiner is cordially invited to contact Applicant's undersigned attorney at his number listed below.

Respectfully submitted,

Thomas J. McWilliams
Registration No. 44,930
Reed Smith LLP
2500 One Liberty Place
1650 Market Street
Philadelphia, PA 19103
Phone 215.241.7984
Fax 215.851.1420

In the Specification

Please amend the specification as follows and without prejudice:

Page 16, line 6, please delete "20", such that the replacement paragraph reads:

--Figure 1 is a block diagram illustrating a wideband signal distribution system 10 used in a display environment. The distribution system 10 distributes signals within a specified frequency range, such as 5 MHz in excess of 1 GHz. The system of Figure 1 can be utilized for distributing any wideband signals, which wideband signals A1 may be any digital or analog signal, or any RF carrier signal between 5 MHz to in excess of 1 GHz, for example. The typical display environment 20 for the wideband signal distribution network includes a display 22 and a source of signals 24, such as a VCR or cable or digital cable TV, which source may be remotely located.--

Page 24, line 10, please amend "238" to read –38--, such that the replacement paragraph reads:

--The modulated RF signal, including at least one digital signal, is, upon receipt at the intelligent device from the BUD 38, preferably split into an IP portion of the incoming signal, and into a non-IP portion of the signal. The signal entering the A2 intelligent device is preferably split by at least one RF splitter 214, and is then differentiated according to the information frequency on the incoming carrier. For example, the non-IP portion, digital or analog, of the signal may be passed through a first band pass filter 216 that passes only the band of the RF carrier that includes the non-IP portion, and is preferably then fed to a standard RF television/computer outlet 232. Only preselected RF channels, as discussed hereinabove, are allowed to pass to this standard outlet 232.--

Page 26, line 12, please amend "238" to read –38--, such that the replacement paragraph reads:

--Figure 4 illustrates an intelligent device system 400 for the remote sending of digital transmissions using modulated RF. The remote send-only intelligent device system 400 includes, external to the intelligent device 402, a plurality of incoming signals, such as from a desktop unit or desktop video feed, which signal is at least, in part, IP data, but which may include non-IP data, a BUD 38, and a remote send intelligent device 402 that may include a digital combiner 410, a traffic sensor 412, at least one modulator 414, an RF converter section 418, a DSP 420, an RF system channel detector 422, and, if necessary, input/output baluns 430 or other impedance matching hardware. The digital signal may be incoming to an input port of a BUD. This signal may exit, for example, an output port of a BUD, in a twisted pair output, for example, such as on pins 3 and 4, and may then be passed to the remote send intelligent device 402.--

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Page 27, line 7, please amend "238" to read –38--, such that the replacement paragraph reads:

--Upon receipt at the intelligent device 402, the signal may be passed through a balun 430, as discussed hereinabove, and is then preferably fed to a digital combiner 410, such as a multiplexer. In a preferred embodiment, each signal fed to the digital combiner 410 may be, for example, ten megabits per second, and numerous signals from numerous output ports of the BUD 38 may be combined as specified according to the type of digital combiner 410 used. For example, in an embodiment

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A4 wherein eight ten megabit per second channels enter an 8 way multiplexer, the signal exiting the digital combiner 410 would exit at eighty megabits per second.--

Page 29, line 10, please amend "240" to recite --420--, such that the replacement paragraph reads:

--The digital signal processor (DSP) 420 is a DSP as is known in the art, and determines the number of modulators, or the channel width or widths, need to modulate the signal incoming to the traffic sensor 412, as well as the number of RF channels, and which RF channels, on which the output of the modulator or modulators is modulated. Note that, for example, where QAM modulation is used, QAM modulation is generally 40 megabits per second, per 6 MHz RF channel, thus requiring the use of two 6 MHz RF channels in order to modulate the 80 megabits per second coming from the digital combiner in the exemplary embodiment hereinabove. The RF channel A5 frequency is selected from at least two available frequency channels. However, the channel width can, for example, be increased from 6 MHz per channel to 12 MHz per channel in order to accommodate, for example, the 80 megabits per second digital stream, if adjacent channel space is available or unused. Further, through the use of an RF system channel detector 422, the DSP 420 is updated as to the channels that are currently in use by the wideband signal distribution system, thereby indicating the channels and bandwidth that are currently available for use by the system. The DSP 420 may additionally place a guardband between channels, or perform other signal conditioning functions, and may be the same DSP, or a different DSP, than that in Figures 2, 4, 5, 6, 7 or 8.--

Page 32, line 2, please amend "210" to recite –10--, such that the replacement paragraph recites:

--The output of the RF converter section 418 is preferably impedance matched to a BUD 38, and feeds the signal exiting the RF converter section 418 to the BUD input port or ports. The BUD output port or ports then feed an RF splitter 214, which splits the signal entering the intelligent device 502, and the signal is then differentiated according to the information frequency on the incoming carrier. The RF splitter 214 sends the information of the RF channels in use to the RF system channel detector 239. The modulated RF signal is preferably differentiated into an IP portion, i.e. a digital data portion, of the incoming signal, and into a non-IP portion of the signal, according to the information frequency on the incoming carrier. In an embodiment wherein this differentiation is performed by at least two bandpass filters 216, 218, the bandpass filters may be electronically controlled by the DSP 420. The non-IP portion, digital/analog, of the signal is passed through a bandpass filter 216 and is preferably then fed to a standard RF television/computer outlet 232. Only pre-selected RF channels, or electronically selected RF channels selected by, for example, a DSP 420, as discussed hereinabove, are allowed to pass to the RF television/computer outlet 232, such as, for example, any or all of the 29 channels provided using the wideband distribution system 10.--

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In the Claims

Please amend the following claims as follows and without prejudice:

Sub B1

1. (AMENDED) A signal distribution system, comprising:

a wideband signal distribution system for distributing a plurality of non-IP, RF modulated signals; and,

at least one intelligent device [that distributes] for modulating single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system [, wherein said single frequency carrier RF signals comprise digital information].

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2. (AMENDED) A signal distribution system, comprising:

a wideband signal distribution system including 568 standard wiring for distributing a plurality of non-IP, RF modulated signals and; and,

at least one intelligent device [that distributes] for demodulating single frequency carrier RF signals off of said wideband signal distribution system, wherein said single frequency RF signals comprise IP digital information.

3. (AMENDED) A [single carrier frequency RF] receiver and sender intelligent device system for use [in transmitting IP digital information on an RF carrier through] with a wideband distribution network for distributing a plurality of non-IP, RF modulated signal portions and IP digital information signal portions using a plurality of RF carriers, said system comprising:

at least one addressable device having at least one input and at least one output;

[an] at least one intelligent device [that communicates] communicatively coupled with said at least one addressable device to communicate therewith a single carrier frequency RF signal carrying at least the IP digital signal portion thereon; and,

a COS identification processor [that determines] for determining [the] a quality of service needed for [a] said [digital] IP [portion of the] digital signal portion, and [that selects] selecting a [specific] suitable one of said RF [carrier] carriers based on the determined quality of service [needed].

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B1 cont'd

4. (AMENDED) A signal distribution system over a non-IP, RF modulated multiple carrier network, said system comprising:

a wideband signal distribution system for distributing said RF modulated carriers over said network;

at least one intelligent device communicatively coupled to said distribution system for modulating [that distributes] single frequency carrier RF signals using IP digital data and distributing said modulated single frequency RF signals onto said wideband signal distribution system [,wherein the single frequency carrier RF signals comprise digital information];

wherein said at least one intelligent device uses an existing media control access layer of the network in order to control the sharing of media channels among multiple addressable devices in the system.

5. A signal distribution system over a network, comprising:

a wideband signal distribution system for distributing a plurality of non-IP, RF modulated signals;

at least one intelligent device [that distributes] for demodulating single frequency carrier RF signals off of said wideband signal distribution system, wherein said single frequency carrier RF signals comprise IP digital information;

wherein said at least one intelligent device uses an existing media control access layer of the network in order to control the sharing of media channels among multiple addressable devices in the system.

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B1 cancel.